

ABSTRACT

Flowable-material transfer apparatus and device for transferring flowable material from one containment vessel or system to another. The apparatus comprises a connector device, a closed conduit system, and applicable force systems and controls for effecting efficient flow of the flowable material. The connector device has a source-container connector and a transfer-apparatus connector that together provide a flowpath from the source container to a destination container. The source-container connector contains a normally-closed flow valve situated in the flowpath and a flow-valve actuation assembly. The connector device includes a device locking mechanism that prevents the connector device from being disconnected when the flow valve is open.